

YEGOROV, N.M.; LEVINA, A.A.; VASILENOK, Yu.I.; KONOPLEV, B.A.; PARFENOVA,  
A.M.; KASHIRINA, N.B.

Effect of impurities in the solvent on the synthesis of low pres-  
sure polyethylene. Plast. massy. no.9:1-4 '65. (MIRA 18:9)

MONOPLEV, B. N.

Technology of motion-picture production. Moskva, Iekuestvo, 1953. 408 p.  
(54-22444)

TR850.K62

SOKOLOV, Ippolit Vasil'yevich; KONOPLYEV, B.N., red.; FOMIN, A.A.,  
red.; CHICHEVIN, A.N., tekhn.red.

[History of the invention of motion pictures] Istoriia  
izobretenia kinematografa. Pod obshchei red. B.N.Konopleva.  
Moskva, Gos.izd-vo "Iskusstvo," 1960. 193 p.

(MIRA 14:4)

(Motion pictures)

KONOPLEV, Boris Nikolayevich; EYSYMONT, L.O., red.; REYZMAN, Ye.Ya.,  
tekhn. red.

[Production of motion pictures] Proizvodstvo kinofil'mov. Mo-  
skva, Izd-vo "Iskusstvo," 1962. 396 p. (MIRA 16:1)  
(Motion pictures—Production and direction)

KONOPEV, F.

Work mechanization in the Pugachev Quarry.. Avt.dor. 23 nc.1:29  
Ja '60. (MIRA 13:5)  
(Saratov Province--Quarries and quarrying)

KONOPLEV, F. G.

Bee Culture

Acidic feed supplement for bees. Pchelovodstvo 30, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

KONOPLEV, F.N.

SKRAMTAYEV, B.G., professor, laureat Stalinskoy premii; POPOV, N.S., laureat Stalinskoy premii; ORLYANKIN, N.M., laureat Stalinskoy premii; KONOPLEV, F.N., laureat Stalinskoy premii.

Activation of cement by preliminary wet grinding in concrete mixers. Rats.i izobr.predl.v stroi. no.55:12-13 '53. (MLRA 7:3)  
(Cement) (Mixing machinery)

KONOPLEV, Ivan Ivanovich; MAMONTOVA, O.K., red.

[The developing industry of Amur Province] Promyshlennost'  
Amurskoi oblasti v razvitii. Blagoveshchensk, Amurskoe  
knizhnoe izd-vo, 1963. 125 p. (MIRA 17:4)



L 25966-66 EWT(m)/ETC(f)/EPF(n)-2/ENG(m) IJP(c) VW

ACC NR: AP5026440

SOURCE CODE: UR/0089/65/019/004/0350/0354

AUTHOR: Ganzha, V. D.; Yegorov, A. I.; Kaminker, D. M.; Kolyadin, A. B.  
Konoplov, K. A.; Saykov, Yu. P.; Sharov, V. T.

ORG: none

TITLE: Electrophoretic filter for reactor water purification

SOURCE: Atomnaya energiya, v. 19, no. 4, 1965, 350-354

TOPIC TAGS: nuclear research reactor, nuclear reactor ~~operation~~, water purification equipment, ~~water cooled nuclear reactor~~, industrial filter, electrophoresis, corrosion, stainless steel / VVR-M nuclear reactor, 1Kh18N9T stainless steel

ABSTRACT: In January, 1962, a formation of turbidity in the primary loop of the VVR-M reactor of the Physicotechnical Institute im. A. F. Ioffe, AN SSSR, was observed. In June, the turbidity was so strong that a special electrophoretic filter for water purification was installed. The turbid water contained a 54-ppt suspension of hydrate aluminum oxide which was originated by the corrosion of aluminum reactor vessel and fuel-element cans. A daily amount of about 2 g/Mw of suspended particles was discharged into the water. The installed filter was equipped with the platinized titanium anodeplates, while the cathode

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UDC: 621.039.568

L 25966-66

ACC NR: AP5026440

plates were made of 1 18 9T stainless steel. A cylindrical prototype of the filter was experimentally tested and the results were explained and graphically illustrated. The tests showed that the chemical composition of turbid and filtered water was as follows:

	<u>Turbid</u>	<u>Filtered</u>
Al <sub>2</sub> O <sub>3</sub> in m/kg	3.0	0
Fe <sup>+3</sup> " "	0.4	0.18
SiO <sub>2</sub> " "	6.0	1.3
O <sub>2</sub> " "	0.96	2.96
Optical density	0.065	0.008

The selected filter design data are summarized in the following table:

Water flow rate in kg/hr	250-500
Effective water flow in cu m/hr	0.5
Electrode voltage in v	110-220
Distance between electrodes in cm	1
Contact time in min. (at 250 l/hr)	2
Total filter volume in liter	10.7
Interelectrode volume in liter	7.5
Electrode size in mm	170x572
Number of anode plates	4
Number of cathode plates	5
Filter dimensions in mm	400x224x955

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Card 3/3

L 28986-66 EPF(n)-2/ENT(m)/ETC(f)/ENG(m)/EWP(t)/ETI LJP(c) JD/JG

ACC NR: AP6001792

SOURCE CODE: UR/0089/65/019/006/0517/0521

AUTHOR: Kaminker, D. M.; Konoplev, K. A.; Semenov, Yu. P.; Trenin, V. D.

ORG: Physicotechnical Institute im. A. F. Ioffe of AN SSSR (Fiziko-49  
technical institut AN SSSR) 42  
B

TITLE: Reduction of radioactive discharges into the atmosphere and  
investigation of water deaeration conditions in the primary loop of  
VVR-M reactor 19

SOURCE: Atomnaya energiya, v. 19, no. 6, 1965, 517-521

TOPIC TAGS: nuclear research reactor, nuclear reactor technology,  
nuclear reactor component, isotope/VVR-M nuclear reactor

ABSTRACT: The design and the two-year operation of the closed deaera-  
tion loop of the VVR-M reactor are discussed. The reactor was installed  
at the Physicotechnical Institute im. A. F. Ioffe. The experience with  
this reactor disclosed that radioactive discharges into the atmosphere  
from experimental holes and hot channels were unimportant in compari-  
son with the radiolytic and gas discharges from the deaerator. It was  
mentioned that the Ar-41 isotope was the main product of the bombard-  
ment of the air by neutrons. The radioactive gas discharge was reduced  
by using a closed deaeration system for removing and burning detonation  
gas. The gas from the deaerator being preheated in a 10-kw heater was  
delivered to a 7-liter platinum catalyzer where a slow burning process  
Card: 1/2 27 UDC: 621.039.586.539.16.04 2

KONOPLEV, K.S.

Category : USSR/Nuclear Physics - Structure and Properties of Nuclei

C-4

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3200

Author : Kel'man, V.M., Metskhvarishvili, R.Ya., Romanov, V.A., Rusinov, L.I.,  
Konoplev, K.A.\*

Inst : Leningrad Physicotechnical Institute, Academy of Sciences USSR

Title : Determination of the Ratios of the Internal-Conversion Coefficients for  
the Isomeric Transition of  $\text{In}^{114}$ .

Orig Pub : Dokl. AN SSSR, 1956, 107, No 3, 394-397

Abstract : A prism beta spectrometer with a transmission factor .02% and a resolution 0.04% was used to measure the ratios of the conversion coefficients at various L subshells and also at the K, M, and N shells for the 192-kev isomeric transition in  $\text{In}^{114}$ . The ratios are  
L<sub>I</sub>: L<sub>II</sub>: L<sub>III</sub> =  $(0.24 \pm 0.01)$ :  $(1.27 \pm 0.02)$ : 1; L/M =  $4.4 \pm 0.1$ ;  
M/N =  $4.6 \pm 0.2$ ; K/L =  $1.32 \pm 0.02$ . All data are in good agreement with the type of multipole transition assumed (E4).

Card : 1/1

\* Initials K. S. on duplicate Buttle Card.

KAPLINER, D. M.; KONOPEV, K. A.

"The work and the employment of the research reactor WWR-M with the maximum neutron flux  $3.10^{14}$  n/cm<sup>2</sup>/sec."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva, 31 Aug-9 Sep 64.

GANZHA, V.D.; YEGOROV, A.I.; KAMINKER, D.M.; KOLYADIN, A.B.;  
~~KONOPLEV, K.A.~~; SAYKOV, Yu.P.; SHAROV, V.T.

Electrophoretic filter for purifying reactor water. Atom.  
energ. 19 no.4:350-354 0 '65. (MIRA 18:11)



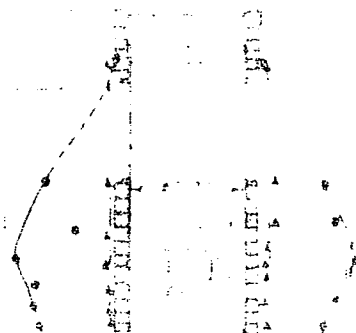
33246-65

1. 114-12270

1. 114-12270  
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1. 114-12270



APR 1961 12170



ACCESSION NR: AP4036534

S/0089/64/016/005/0456/0457

AUTHORS: Ganzha, V.D.; Konoplev, K.A.; Trenin, V.D.; Sharov, V.T.

TITLE: Ion exchange installation for preparing reactor feed water

SOURCE: Atomnaya energiya, v. 16, no. 5, 1964, 456-457

TOPIC TAGS: ion exchange water desalting, reactor water desalting, water desalting, reactor feed water, water cooled reactor, moderated reactor

ABSTRACT: The article describes an ion exchange water desalting installation to provide water feed for water cooled and moderated reactors. The installation has been designed at the Physical-Technical Institute im. A.F. Ioffe, An SSSR as a substitute for an unsatisfactory electric distillation plant at the VVR-M reactor, which has low capacity, rapid scale forming, and low electrical resistivity of final product). The described installation produces 3 m<sup>3</sup>/hr feed water with 1 mg/l. salt, and less than 0.02 mg/l chloride ions. The water supply is adequate for a regeneration cycle of 50 m<sup>3</sup>. Artesian water is used as feed for desalting (400 mg/l. salts, mostly Ca and Mg). Cation exchange resin KU-2 and anion exchange

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L 04451-57 EWT(1)

ACC NR: AP6014693

(N, A)

SOURCE CODE: UR/0105/66/000/005/0050/0054

AUTHOR: Konoplev, K. G. (Candidate of technical sciences; Sevastopol')

ORG: none

33

B

TITLE: Induction motor operating stability

SOURCE: Elektrichestvo, no. 5, 1966, 50-54

TOPIC TAGS: induction motor, induction motor stability, electric motor, electric generator

ABSTRACT: Formulas are developed and curves supplied for determining the rpm variation of an induction motor upon a change of voltage applied to the motor. The moment of inertia of the drive involved, the motor braking torque, and the law of voltage variation are taken into account. The behavior of the induction motor under the above conditions can be described by this equation:  $\frac{ds}{dx} + s[\mu + a(1 - e^{-s})] = \mu$ , where

$$x = \frac{t}{T} + t_0; t_0 = \ln\left(1 - \frac{U_0}{U_n}\right); a = \frac{AT}{M_s T_n}; T_n = \frac{GD^2 n_c}{375 M_s}; \mu = \frac{kn_s T}{M_s T_n}; \text{ The solution of the}$$

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UDC: 621.313.333:016.35

ACC NR: AP6014693

above equation is:  $s = s_1 f_1(a, x) f_2(\mu, x) + \mu f_1(a, x) f_2(\mu, x) f_3(a, \mu, x)$ , where

$$f_1(a, x) = e^{-ax}; f_2(a, \mu, x) = \int_0^x e^{\mu x} dx; f_3(\mu, x) = e^{-\mu x}; \varphi = \mu x + \psi; \psi = a(x + 2e^{-x} - 0,5e^{-2x} - 1,5).$$

The functions  $f_1$ ,  $f_2$ , and  $f_3$  are presented in the form of curves. A special set of equations describes stability conditions. An experimental verification that included a self-excited current-compound synchronous generator, an induction motor used as a load, and a test induction motor is mentioned. Orig. art. has: 4 figures, 40 formulas, and 2 tables.

SUB CODE: 09 / SUBM DATE: 03May65 / ORIG REF: 005

Card 2/2

*egh*

KONOPLEV, K.G. (Sevastopol')

Time dependence of the slippage of an asynchronous motor with voltage  
change. Izv. AN SSSR. Energ. i transp. no. 4: 484-488 J1-Ag '64.  
(MIRA 17:10)

KONOPLEV, K.G., kand.tekhn.nauk (Sevastopol')

Variations in the voltage of synchronous generators with different  
excitation systems and suddenly applied loads. Elektrichestvo no.12:  
46-51 D '62. (MIRA 15:12)

(Electric generators) (Electric power distribution)

KONOPLEV, K.G. (Sevastopol')

Measurement of the voltage of a synchronous generator with current compounding and voltage compensation during the saturation of transformers. Izv. AN SSSR. Otd. tekhn. nauk. Energ. i transp. no.1:41-47 Ja-F '63.

(MIRA 16:5)

(Electric generators—Measurement) (Electric power distribution)

KONOPLEV, M.

For mass participation and mastery. Voen. znan. 39 no.5:  
26-27 My '63. (MIRA 16:5)

1. Nachal'nik Tsentral'nogo strelkovo-sportivnogo kluba Dobrovol'-  
nogo obshchestva sodeystviya armii, aviatsii i flotu.  
(Shooting)



1. KONOPLEY, N. A.
2. USSR (600)
4. Feed Grinders
7. How to adjust the RSB-1, O straw-silage cutter for chopping grass for chicken feed. Ptitsevodstvo no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

KONOPLEV, N. A.

Konoplev, N. A.

"The effect of Various Complexes of External Factors (Temperature, Moisture, and Speed of Movement of the Air) on the Growth and Development of the Chick Embryo." Moscow Veterinary Academy, Min Higher Education USSR. Moscow, 1955. (Dissertation for the degree of Candidate in Biological Sciences)

SO: Knizhnaya letopis' No. 27, 2 July 1955

KONOPLEV, N. A.

Fruit Culture

Organization of large commercial orchards on collective farms., Sad i og. no. 3, 1952

9. Monthly List of Russian Accessions, Library of Congress, May <sup>2</sup>195~~3~~. Unclassified.

1. KONOPLEV, N. A.
2. USSR (600)
4. Viticulture
7. Successes of vineyard operators on the "Kaplanbek" State Farm. Vin. SSSR 13, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.

1. KONOPLEV, N. P.

2. USSR (600)

"The Influence of the Thermic Conditions of Certain Currents in the Atlantic Ocean Upon the Temperature Balance of the Atmosphere". Trudy GOIN, Issue 8, 1948 (36-68)

9. Meteorologiya i Gidrologiya, No. 3, 1949, REDACTED Report U-2551, 30 Oct 52.

KONOPLIV, N.P.

Experience in classifying the climates of the World Ocean. Trudy  
GOIN no.21:54-68 '52. (MIRA 11:3)  
(Ocean) (Climatology)

IVANOV, V.D., dots.; POKOTILO, V.P., dots.; KONOPLEV, P.S., st.  
prepod.; AKSENOV, A.A., assis.; KLYKOV, K.S., assis.;  
MART'YANOVA, L.I., tekhn. red.

[Reference book on sawing lumber materials] Posobie po ra-  
skroiu pilovochnogo syr'ia. Arkhangel'sk, Arkhangel'skoe  
knizhnoe izd-vo, 1962. 104 p. (MIRA 16:4)

1. Nauchno-tekhnicheskoye obshchestvo lesnoy promyshlen-  
nosti. Arkhangel'skoye oblastnoye pravleniye. 2. Kafedra le-  
sopil'no-strogal'nykh proizvodstv Arkhangel'skogo lesotekhn-  
icheskogo instituta (for all except Mart'yanova).  
(Hardboard)

KONOPLEV, Sergey Pavlovich; MINEYEV, T.K., otv. red.

[Aluminum raw materials and the prospects of finding them  
in Irkutsk Province] Aluminievoye syr'e i perspektivy ego  
poiskov v Irkutskoi oblasti. Irkuts, Irkutskoe geologi-  
cheskoe upravlenie, 1961. 67 p. (MIRA 17:3)



KONOPLEV, S.S.

Hinged-panel scaffolding. Biul.tekh.inform. 4 no.10:24-25 0 '58.  
(MIRA 11:11)

(Scaffolding)

KONOPLEV, S., polkovnik

When the fate of a man is decided. Komm. Vooruzh. Sil 46 no.10:  
37-41 My '65. (MIRA 18:6)

1. Sekretar' partiynoy komissii pri politicheskom upravlenii  
Leningradskogo voyennogo okruga.

MEL'NIKOV, A., inzh.; KONOPIEV, S., <sup>S</sup>tekhnik

Vibrating forms for making cushion blocks for foundations. Stroitel'  
no.10:14 O '58. (MIRA 11:11)  
(Concrete construction--Formwork) (Concrete blocks)

L 34868-66 ENT(d)/ENP(v)/ENP(k)/ENP(h)/ENP(l)

ACC NR: AF6014518

SOURCE CODE: UR/0115/65/000/011/0008/0010

AUTHOR: Orlova, M. P.; Konoplev, V. A.; Sharevskaya, D. I.; Astrov, D. N.;  
Al'shin, B. I.; Medvedeva, L. A.

ORG: none

TITLE: New commercial resistance thermometer

SOURCE: Izmeritel'naya tekhnika, no. 11, 1965, 8-10

TOPIC TAGS: resistance thermometer, temperature measurement, low temperature research / PTS-100 resistance thermometer

ABSTRACT: As the PTS-100 standard platinum resistance thermometer (10-300K,  $\pm 0.01K$ ) is suitable only for operating under laboratory conditions, two new high-accuracy designs have been developed by the authors for industrial uses. In the first design (see Figure 1), coil 1 is fastened by the glass coating of straight platinum wire 2. Four such vitrified coils constitute the sensor of the thermometer. Platinum supporting wires are used as lead-ins 4 in envelope 3 filled by

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UDC: 536.531

L 34868-66 APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000824320010

ACC NR: AP6014518

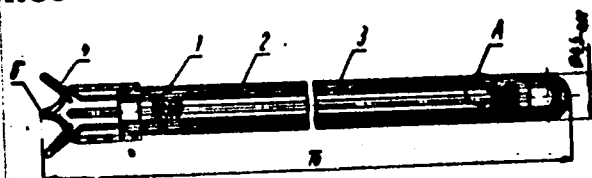


Fig 1

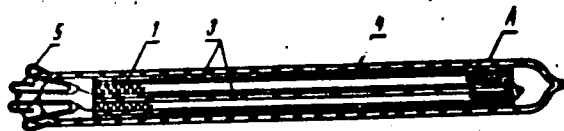


Fig 2

helium through throat 5. In the second design (see Figure 2), a straight 0.1-mm glass thread 2 is placed inside platinum coil 1. The latter is mounted in glass capillary 3; envelope 4 and platinum lead-ins 5 are conventional. The above designs were tested for vibration (50-3000 cps) and temperature stability (250, 100, 0C; H boiling and

triple points). Their thermal inertia was 5-8 sec. Orig. art. has: 2 figures and 1 table.

SUB CODE: 20, /4 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 002

Card 2/2

vmb

KONOPIEV, V.F.

Expand on a large scale the fruit and vegetable canning industry  
in the Stavropol Province. Kons.i ov.prom. 17 no.7:35 JI '62.  
(MIRA 15:6)

1. Gosudarstvennyy soyuznyy proyektnyy institut po proyektirovaniyu  
predpriyatiy pishchevoy promyshlennosti.  
(Stavropol Province—Canning industry)

KARASIK, M.Ye., inzh.; KRONFEL'D, B.D., inzh.; KONOPLEV, V.G., inzh.; KRY-  
ZHANOVSKIY, V.M., inzh.; ABRAGAM, S.R., inzh., red.; BOBROVA, Ye.N.,  
tekhn. red.

[Organization of construction works during the electrification of  
railroads; experience of the construction organizations of the  
Ministry of Construction for Transportation] Organizatsiya stroitel'-  
nykh rabot pri elektrifikatsii zheleznykh dorog; opyt stroitel'nykh  
organizatsii Mintransstroia. Moskva, Vses. izdatel'sko-poligr. ob"edi-  
nenie M-va putei soobshcheniya, 1960. 65 p. (MIRA 14:7)  
(Railroads--Electrification) (Railroad engineering)

KONOPLEV, V.G.

A plant with the seven-hour workday. Transp.stroi. 10 no.4:  
36-37 Ap '60. (MIRA 13:9)

1. Nachal'nik Kuybyshevskoy normativno-issledovatel'skoy stantsii.  
(Hours of labor) (Meleuz--Precast concrete)

S/190/60/002/009/019/019  
B004/B060

AUTHORS: Patrikeyev, G. A., Gusarov, B. G., Konoplev, V. I.  
TITLE: Brittle Rupture of Polymers<sup>1</sup> in High-elastic State  
PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 9,  
pp. 1438-1439

TEXT: Polymeric material weakened by incisions is bound to undergo a brittle rupture at the incised spot at low temperatures and a certain critical elongation rate. The authors checked this assumption by a dynamometer and an MPO-2 (MPO-2) loop oscilloscope which allowed for elongation rates to be measured up to  $2 \text{ m} \cdot \text{sec}^{-1}$ . In natural rubber, the tearing strength was found to be considerably reduced at an elongation rate of over  $0.7 \text{ m} \cdot \text{sec}^{-1}$  and temperatures of  $-20 \pm 5^\circ \text{C}$ . At this rate, a brittle rupture occurred at  $-60^\circ \text{C}$ . Figs. 1 and 2 show the experimental data. The authors recommend the application of tearing strength tests at high elongation rates. The need is felt of an improvement in inertialess dynamometers. There are 2 figures and 2 Soviet references. ✓

SUBMITTED: June 11, 1960  
Card 1/1



ACCESSION NR: AP4019494

S/0078/64/009/003/0688/0692

AUTHORS: Mikheyeva, V. I.; Konoplev, V. N.

TITLE: Fusibility diagram in the dimethylformamide-sodium borohydride system

SOURCE: Zhurnal neorg. khimii, v. 9, no. 3, 1964, 688-692

TOPIC TAGS: dimethylformamide sodium borohydride system, sodium borohydride solubility, fusibility diagram, borohydride synthesis, sodium borohydride solvate, liquidus peritectic, sodium borohydride, dimethylformamide solvate

ABSTRACT: Since sodium borohydride is the basic starting material for the synthesis of other borohydrides, its solubility in dimethylformamide (DMF) was studied to determine the possibility of using the latter in the preparation of borohydrides. The fusibility diagram was constructed for the dimethylformamide-sodium borohydride system (fig. 1). The continuous increase in liquidus temperature without a temperature maximum, in addition to breaks in the temperature of the solidus corresponding to increases in sodium borohydride content,

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ACCESSION NR: AP4019494

indicates the peritectic character of the equilibrium in the given system. Three congruently melting solvates are formed:  $\text{NaBH}_4 \cdot 4\text{DMF}$ , from 0.66-8.9 mol.%  $\text{NaBH}_4$  solutions at 8.7°C,  $\text{NaBH}_4 \cdot 2\text{DMF}$  from 15.6 mol.%  $\text{NaBH}_4$  solution at 8.7-20.4°C, and  $\text{NaBH}_4 \cdot \text{DMF}$  from 31.3 mol.%  $\text{NaBH}_4$  at 20.4-26.5°C. Above 26.5°C the  $\text{NaBH}_4$  is crystallized as non-solvated material. The solubility of  $\text{NaBH}_4$  in DMF at 0, 25 and 50°C is 5.5, 25.8 and 32.3 mol.%  $\text{NaBH}_4$  (2.9, 15.4, and 19.9 wt.%  $\text{NaBH}_4$ ). "Optical study was conducted by V. A. Vol'nova, for which we thank her." Orig. art. has: 2 figures and 3 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of Sciences SSSR)

SUBMITTED: 10Jul63

DATE ACQ: 31Mar64

ENCL: 01

SUB CODE: CH

NR REF SOV: 007

OTHER: 010

2/3

Card

L 10441-66 EWT(m)/EWP(j)/T/EWA(h) JW/RM

ACC NR: AP6000287

SOURCE CODE: UR/0078/65/010/009/2108/2114

AUTHOR: Mikheyeva, V.I.; Konoplev, V. N.

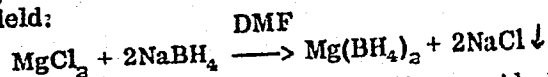
ORG: None

TITLE: Reaction of sodium borohydride with anhydrous magnesium chloride in N, N-dimethylformamide

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 9, 1965, 2108-2114

TOPIC TAGS: magnesium compound, sodium compound, borohydride, exchange reaction, chloride, solvent extraction

ABSTRACT: The exchange reaction between sodium borohydride and anhydrous magnesium chloride in N, N-dimethylformamide at 25 and 50C occurs readily, forming magnesium borohydride in 87-90% yield:



When the solution of magnesium borohydride in dimethylformamide is kept for 48 hours at a temperature between -5 and 7C, or when the solvents ether, benzene, or diethylene glycol dimethyl ether are added, a crystal solvate of the composition  $\text{Mg}(\text{BH}_4)_2 \cdot 6\text{HCON}(\text{CH}_3)_2$  separates out. The great stability of the bond between dimethylformamide and the magnesium borohydride molecule, the low thermal stability of the latter, and the low volatility of dimethylformamide permit desolvation neither by treatment with solvents nor by vacuum distillation.

UDC: 546.33'273'11+546.46'273'11

Card 1/2

L 10441-66

ACC NR: AP6000287

Thus, the preparation of unsolvated magnesium borohydride remains a problem to be solved. Orig. art. has: 1 figure, 2 tables, and 2 formulas.

SUB CODE: 07 / SUBM DATE: 17Sep64 / ORIG REF: 005 / OTH REF: 024

BC  
Card

2/2

L 11215-66 EWT(m)/EWP(j)/ENA(h)/EMP(e)/EMP(b) IJP(c) JD/WW/JW/RM

ACC NR: AP6003641

SOURCE CODE: UR/0078/65/010/010/2363/2366

AUTHOR: Konoplev, V. N.; Mikheyeva, V. I. 38

ORG: none B

TITLE: Solubility isotherm of magnesium borohydride and sodium borohydride in N and N-dimethylformamide at 0°C 21 21 112

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 10, 1965, 2363-2366

TOPIC TAGS: magnesium compound, sodium compound, borohydride, solubility

ABSTRACT: In order to check the hypothesis that solvent molecules are occluded by  $Mg(BH_4)_2 \cdot 6DMF$  crystals (DMF=dimethyl formamide  $HCON(CH_3)_2$ ), the chemical nature of the phases crystallizing at 0°C in the ternary system  $Mg(BH_4)_2$ - $NaBH_4$ -DMF was investigated. Equilibrium was studied by the isothermal method of solubility determination. The solubility isotherm is shown in fig. 1. It shows fields of crystallization of only three solid phases,  $Mg(BH_4)_2 \cdot 6DMF$ ,  $NaBH_4 \cdot 4DMF$ , and  $NaBH_4 \cdot 2DMF$ . The cocrystallization of  $NaBH_4 \cdot 2DMF$  and  $Mg(BH_4)_2 \cdot 6DMF$  has an isosmotic point at 2.32%  $NaBH_4$  and 3.11%  $Mg(BH_4)_2$ . The field of crystallization

UDC: 546.33'271'11+546.46'271'11

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AP6003641

in the crystallization of  $\text{Mg}(\text{BH}_4)_2 \cdot 6\text{DMF}$ . This phenomenon is probably due to a higher viscosity of the solution, a marked supercooling tendency, lack of a seed for facilitating the crystallization, and the existence in the solution of unstable complexes based on magnesium and sodium borohydrides. Experimental data show that the addition of  $\text{Mg}(\text{BH}_4)_2 \cdot 6\text{DMF}$  crystals to the dimethylformamide solution of sodium borohydride has a desolvating effect on the  $\text{NaBH}_4 \cdot 4\text{DMF}$  compound, which changes into  $\text{NaBH}_4 \cdot 2\text{DMF}$  as the content of added  $\text{Mg}(\text{BH}_4)_2$  increases. Orig. art. has: 1 figure, 1 table.

SUB CODE: 07/ SUBM DATE: 27Jan65/ ORIG REF: 007/ OTH REF: 002

TS

Card 3/3

DLUGACH, I.M.; KURAS, Z.F.; MURAV'YEVA, I.P.; SAMYGINA, Ye.P.;  
SHABAD, L.M., glav. red.; VERMEL', Ye.M., prof., zam. glav.  
red.; KONOPLEV, V.N., zam. glav. red.; ABELEV, G.I., red.  
toma; IRLIN, I.S., red. toma; SAMOYLOV, V.I., red. toma;  
SHABAD, L.M., red.; GONCHAROVA, T.I., tekhn. red.

[Transactions of the Eight International Cancer Research  
Congress in six volumes] Trudy v shesti tomakh. Moskva,  
Medgiz. Vol.3.[Problems in the virology and immunology of  
cancer. Correlations of tumor and body] Voprosy virusolo-  
gii i immunologii raka. Vzaimootnosheniia opukholi i organiz-  
ma. 1963. 518 p. (MIRA 17:3)

1. International Cancer Research Congress. 8th, Moscow, 1962.
2. Deystvitel'nyy chlen AMN SSSR (for Shabad).

\*

MIKHEYEVA, V.I.; KOMOPLEV, V.N.

Reaction of sodium borohydride with anhydrous magnesium chloride  
in N, N-dimethylformamide. Zhur. neorg. khim. 10 no.9:2108-2114  
S '65. (MIRA 18:10)



GREENSTEIN, J., ed.; HADDOW, A., ed.; VASIL'YEV, Yu.M. [translator];  
KONOPIEV, V.P. [translator]; SHABAD, L.M., professor, redaktor;  
SIUCHOV, B.N., redaktor; DUMBIN, I.Ya., tekhnicheskij redaktor

[Advances in cancer research. Translated from the English] Uspekhi  
v izuchenii raka. Perevod s angliiskogo IU.M.Vasil'eva i V.P.  
Konopleva. Pod red. i s predisl. L.M.Shabada. Moskva, Izd-vo  
inostrannoi lit-ry, Vol.2. 1956. 540 p. (MLRA 9:7)

1. Chlen-korrespondent AMN SSSR (for Shabad)  
(CANCER)

SHABAD, L.M., prof., glav. red.; VERMEL', Ye.M., prof., zam. glav. red.; KONOPLEV, V.P., zam. glav. red.; GEL'SHTEYN, V.I., red.; KRICHEVSKAYA, A.A., red.; SHAPOT, V.S., red.; VUL'FSON, K.G., red.; GONCHAROVA, T.I., tekhn. red.

[Transactions of the Eighth International Cancer Research Congress in six volumes] Trudy vos'mogo Mezhdunarodnogo protivorakovogo kongressa v shesti tomakh. Moskva, Medgiz, 1963. Vol.2. [Problems in the biochemistry of cancer and cancerogenesis] Voprosy biokhimii raka i kantserogeneza. 586 p. Vol.4. [Problems in the biology of the cancer cell and radiobiology, radiotherapy and precancer] Voprosy biologii opukholevoi kletki i radiobiologii, luchevoi terapii i pred-raka. 410 p. (MIRA 17:1)

1. Mezhdunarodnyy protivorakovyy kongress, 8th. Moscow.
2. Deystvitel'nyy chlen AMN SSSR (for Shabad).

LAGOVA, N.D.; KONOPLEV, V.P. (Moskva)

Morphological changes in transplanted cancer of the mammary glands on rats after hormone therapy. Arkh. nat. 10:38-44 '62. (MIRA 17:1)

1. Iz laboratorii eksperimental'noy gormonoterapii (zav. - kand. biolog. nauk N.I. Lazarev) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N. Blokhin).

KONOPLEV, V. P.

for

EXCERPTA MEDICA Sec 16 Vol 7/11 Cancer November 59

4555. **Hepatomas in male rats induced with synoestrol (hexoestrol) and testosterone propionate (Russian text)** KONOPLEV V. P. Inst. of Exp. Pathol. and Ther. of Cancer, Moscow *Vopr. Onkol.* 1959 5:2 (138-144) Graphs 1 Illus. 2 Pellets of synoestrol weighing 20-60 mg. were implanted s.c. into 90 male rats, 3-4 weeks old. After 1-1.5 months, they were removed and replaced by testosterone propionate pellets (50-150 mg.) which were left in the rats for another 1-1.5 months. This 'cycle' was repeated for 12-14 months. In 21 males out of 81 that had survived 5 months there appeared hepatomas, varying from 0.3 up to 5 cm. in diameter. The development of the tumours was not accompanied by liver cirrhosis. Hepatomas were observed in 3 out of 32 males treated with synoestrol only and in none out of 22 that had received testosterone propionate only and in 15 controls. The possible mechanism of tumour formation is discussed.

*Lab of exptl. hormone therapy.*

KONOPLEV, V.P.; LAGOVA, N.D.

Characteristics of transplantable carcinoma of the rat mammary gland.  
Biul. eksp. biol. i med. 50 no.7:79-81 J1 '60. (MIRA 14:5)

1. Iz laboratorii eksperimental'noy gormonoterapii (zav. - kandidat biologicheskikh nauk N.I.Lazarev) Instituta eksperimental'noy i klinicheskoy onkologii (dir. - deystvitel'nyy chlen AMN SSSR N.N. Blokhin) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR A.D.Timofeyevskim.  
(BREAST—CANCER) (CARCINOMA)

IRD, Ye.A.; KONOPLEV, V.P.

Spontaneous tumors in rats bred in the nurseries of the Academy  
of Medical Sciences of the U.S.S.R. Vest.AMN SSSR 17 no.11:89-  
96 '62. (MIRA 16:1)

1. Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.  
(ONCOLOGY)

SHABAD, L.M., prof., glav. red.; VERMEL', Ye.M., prof., zam. glav. red.; KONOPEV, V.P., zam. glav. red.; MARMORSHTEYN, S.Ya., red.toma; TRAPEZNIKOV, N.N., red. toma; GONCHAROVA, T.I., tekhn. red.

[Transactions of the Eight International Cancer Research Congress in six volumes] Trudy vos'mogo ~~Mezhdunarodnogo~~ ~~protivorakovogo~~ kongressa v shesti ~~tomakh~~. Moskva, Medgiz, Vol.5. [Problems of clinical oncology] Voprosy klinicheskoi onkologii. 1963. 462 p. (MIRA 17:3)

1. International Cancer Research Congress. 8th, Moscow, 1962.
2. Deystvitel'nyy chlen AMN SSSR (for Shabad).

\*

KONOPLEV, V.P.; LAGOVA, N.D.

Morphological changes in rat mammary cancer (RMK-1) following multiple inoculations. Biul. eksp. biol. i med. 55 no.4:91-94 (MIRA 17:10)  
Ap '63.

1. Iz laboratorii eksperimental'noy gormonoterapii (zav. - kand. biolog. nauk N.I. Lazarev) Instituta eksperimental'noy i klinicheskoy onkologii (dir. - deystvitel'nyy chlen AMN SSSR N.N. Blokhin) AMN SSSR, Moskva. Predstavlena deystvitel'nyy chlenom AMN SSSR L.M. Shabadom.



KONOPEV, V.P.

Asymptotic behavior of orthonormal polynomials in unilateral  
singular points of weight functions (algebraic singularities).  
Dokl. AN SSSR 16C no.5:997-1000 F '65.

(MIRA 18:2)

1. Saratovskiy gosudarstvennyy pedagogicheskiy institut. Submitted August 4, 1964.

AUTHOR: KONOPLEV, V.P.

20-118-1-6/58

TITLE: On the Asymptotic Representation of the Solutions of Linear Differential Equations of Second Order (Ob asimptoticheskom predstavlenii resheniy lineynykh differentsial'nykh uravneniy vtorogo poryadka)

PERIODICAL: Doklady Akademii Nauk, 1958, Vol 118, Nr 1, pp 25-28 (USSR)

ABSTRACT: Let the differential equation

$$(1) k(x)y'' + p(x)y' + [\lambda^2 q(x) + q(x)]y = 0 \quad a \leq x \leq b$$

be given. By the transformation  $x=x(t)$ ,  $y = A(t)z$ ,  $c < t \leq d$  the first derivative is eliminated:

$$(2) z'' + [\lambda^2 \varphi(t) + \psi(t)]z = 0$$

For (2) a "near" equation

$$(3) U'' + [\lambda^2 \varphi(t) + \psi(t) + \omega(t)]U = 0$$

is constructed so that  $\omega(t)$  on  $[c, d]$  for great  $\lambda$  is small compared with  $\lambda^2 \varphi + \psi$ . The function  $\omega(t)$  is chosen so that

(3) by the transformation

$$\xi = \xi(t) \quad v = \sqrt{\frac{d\xi}{dt}} U$$

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APPROVED FOR RELEASE: 06/19/2000 Differential Equations of Second Order

CIA-RDP86-00513R000824320010-1

can be transformed into the form

$$v'' + \sigma(\xi)v = 0 \quad -\infty \leq \xi \leq \xi \leq \delta \leq +\infty$$

Then it is  $v(\xi) = c_1 v_1(\xi) + c_2 v_2(\xi)$ ,  $W\{v_1, v_2\} \neq 0$  and

$$U(t) = \sqrt{\frac{dt}{d\xi}} [c_1 v_1(\xi(t)) + c_2 v_2(\xi(t))] \quad \text{The general solution}$$

of (2) is sought in the form

$$z(t) = \sqrt{\frac{dt}{d\xi}} [c_1(t) v_1(\xi(t)) + c_2(t) v_2(\xi(t))]$$

According to the variational method one obtains for the determination of  $z(t)$  a Volterra integral equation which is solved by successive approximation. The series arising thereby is the asymptotic representation in terms of  $\lambda$ . The representation of  $x$  follows by retransformation.

The proposed scheme is applied to the equation:

$$x^{\alpha} y'' + x^{\alpha-1} p(x) y' + [\lambda^2 x^{\alpha+\beta} r(x) - q(x)] y = 0, \quad 0 < x < 1$$

which is more complicated than those considered formerly.

3 Soviet and 11 foreign references are quoted.

Card 2/3

KONOPLEV, V.P.

Polynomials orthogonal to weight functions which vanish or become infinite at some points of the orthogonality segment. Dokl. AN SSSR 141 no.4:781-784 D '61. (MIRA 14:11)

1. Saratovskiy gosudarstvennyy pedagogicheskiy institut.  
Predstavleno akademikom I.G. Petrovskim.  
(Functions, Orthogonal)

KONOPLEV, V.P.; DOROGOCHINSKIY, A.Z.; MITROFANOV, M.G.

Alkylizing toluene with propylene in the presence of aluminum chloride and polyalkyl toluenes. Trudy GrozNII no. 15:271-273 '63.

Initiating the oxidation of cymenes in the liquid phase.  
Ibid.:274-277 (MIRA 17:5)

ACCESSION NR: AP4041737

S/0181/64/006/007/2200/2202

AUTHORS: Gippius, A. A.; Vavilov, V. S.; Konoplev, V. S.

TITLE: Determination of the yield of recombination radiation connected with dislocations in germanium

SOURCE: Fizika tverdogo tela, v. 6, no. 7, 1964, 2200-2202

TOPIC TAGS: recombination emission, quantum yield, dislocation effect, lead sulfide, photoconductive device

ABSTRACT: The yield is defined here as the ratio of the number of quanta of recombination radiation to the total number of acts of recombination on the given type of centers. Since this yield must be measured when the dislocations play a predominant role in the recombination of the non-equilibrium carriers, the tested sample was bombarded with a beam of ~1 MeV electrons from a Van de Graaff accelerator. The receiver was a lead-sulfide photoresistance calibrated with

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ACCESSION NR: AP4041737

the aid of a black body. n-type germanium with electron density  $n_0 \sim 5 \times 10^{14} \text{ cm}^{-3}$  and dislocation density  $N \sim 10^5 \text{ cm}^{-2}$  was used. The dislocations were introduced by an abrupt change in the thermal conditions during the growth of the crystal. The tests were made at approximately 80K. The quantum yield was found to be quite small, indicating that most recombinations on the dislocations are nonradiative. Some explanations for this phenomenon are discussed. The results obtained for the quantum yield and for some related quantities are compared with data by others. "The authors thank A. V. Spitsy\*<sup>n</sup> for determining the carrier density in the sample and S. I. Vintovkin and V. V. Mikhaylov for help with the measurements." Orig. art. has: 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR  
(Physics Institute, AN SSSR)

SUBMITTED: 24Feb64

SUB CODE: SS

NR REF SOV: 005

ENCL: 01

OTHER: 001

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ACCESSION NR: AP4041737

ENCLOSURE: 01

Results of determination of quantum yield

№ образца 1	$N_0 \cdot 10^{-11}, \text{cm}^{-3}$	$N_d \cdot 10^{-4}, \text{cm}^{-3}$	$J, \text{mA/cm}^2$ 2	$\frac{g \cdot 10^{-19}}{\text{cm}^{-3} \cdot \text{sec}^{-1}}$ 3	$\frac{I \cdot 10^{-10}}{\text{cm}^{-3} \cdot \text{sec}^{-1}}$	$\eta \cdot 10^4$ 4
4	6.5	5	0.5 0.75	1.7 2.5	6.2 7.7	3.7 3.1
5	5.2	4	0.5 1.0	1.7 3.4	3.8 6.4	2.2 1.9
7	3.8	10	1.25 2.25	4.2 7.4	8.2 12.8	1.9 1.7

1 - sample no. 2 -  $j$  (fast-electron density), microamp/cm<sup>2</sup>,  
3 -  $g \cdot 10^{-19} \text{ cm}^{-3} \text{ sec}^{-1}$ , 4 - quantum yield, 10<sup>4</sup>

Card 3/3

KONOPLEV, V. V.

4525. KONOPLEV, V. V.- Sovetskiye schetno-analiticheskiye mashiny. Mashiny 45-kolomnogo komplekta. m., Gosstatizdat, 1954. 376 s. s ill.; 2 L. chert. 26 sm. 7.000 ekz. 17 r. 50 k. v per, 155-145/p

681.177

SO: Knizhnaya Letopis', Vol. 1, 1956



PHASE I BOOK EXPLOITATION

1036

Ryazankin, V.N., Konoplev, V.V., and Dobetskiy, L.Yu.

Sovetskiye schetno-analiticheskiye mashiny; mashiny 80-kolonnogo komplekta (Soviet Punched-card Computing Machines; Machines With 80-Columns) Moscow, Gosstatizdat, 1957. 407 p. 10,000 copies printed.

Ed.: Shentsis, Ye.M.; Tech. Ed.: Pyatakova, N.D.

PURPOSE: The monograph is a handbook for engineering and technical personnel working with punched-card computing machines. It may also be used as a textbook for students of vtuzes and vuzes specializing in computers.

COVERAGE: The authors present a detailed description of the construction of punched-card computing machines. They discuss the electric circuits and the methods for adjusting and testing the machines. V N.Ryazankin wrote the Introduction and Chapter 4, V.V.Konoplev wrote Chapters 1 and 5, and L.Yu.Dubetskiy wrote Chapters 2 and 3.

Card 1/13

KOMOPLEV V. V.

"Review of the book "Principles of control of horned cattle  
sterility" \*Footnote\* VOLCSKOV P. A. "Principles of control of horned  
cattle sterility"

Veterinariya, Vol. 38, No. 12, December 1961, P. 71.  
1960

ZHOLUDOV, Ya.S., inzh.; KONOPLEV, Ye.I., inzh.

Calculation of the temperature mode of finned water walls. Teplo-energetika 12 no.5:71-74 My '65. (MIRA 18:5)

1. Podol'skiy mashinostroitel'nyy zavod im Ordzhonikidze.

BYCHKOVSKIY, A.I., inzh.; KONOPLEV, Ye.I., inzh.; MODEL', Z.G., inzh.

Porous outer wall lining. Energomashinostroenie 11 no.1:45-46  
Ja '65. (MIRA 18:4)

BYCHKOVSKIY, A.L. (Podol'sk); KONOPIEV, Ye.I. (Podol'sk)

Calculation of the temperature field of a tenon packing.  
Izv.AN SSSR.Energ. i transp. no.1:135-142 Ja-F '65. (MIRA 18:4)

KONOPLEN, Yu.

Toward technical progress. Metallurg 10 no.7:7 J1 '65.

(MIRA 18:7)

1. Nachal'nik Byuro po ratsionalizatsii i izobretatel'stvu  
karagandinskogo metallurgicheskogo zavoda.

L 01484-66 EWT(m)/EWP(w) EM

ACCESSION NR: AR5019377

UR/0124/65/000/007/V013/V013

SOURCE: Ref. zh. Mekhanika, Abs. 7V90

AUTHOR: Konoplev, Yu. G.

TITLE: An experimental study of circular elastic plates subject to point loads

CITED SOURCE: Sb. Itog. Nauchn. konferentsiya Kazansk. un-ta za 1963 g. Sekts. matem., kibernet. i teoriya veroyatn., mekhan. Kazan, 1964, 134

TOPIC TAGS: elastic plate, stress analysis, stress distribution

TRANSLATION: The report describes an experimental study of circular elastic plates stressed by a point load. The following particular load conditions are discussed: 1) a point load applied at the center of the plate; 2) a point load applied at an arbitrary fixed point of the plate; 3) several point loads of equal magnitude, applied at equal intervals along the diameter of the plate; 4) a radial line load, uniformly distributed along a concentric circumference; and 5) a load uniformly distributed along the circumference of the center perforation in the plate. Boundary conditions envisioned either simple support along the external contour or rigid attachment. Strain gauge sensors are used to measure stress levels. Deflections are measured along the plate diameter by dial

Card 1/2

L 01484-66

ACCESSION NR: AR5019377

indicators. Diagrams are compiled to illustrate the dependence of deflections and stresses on loads. Experimental results are compared with theoretical data.

SUB CODE: AS

ENCL: 00

Card 2/2 *SP*



KLYKOV, Ye.V., kand.tekhn.nauk; KONOPLEV, Yu.M., inzh.

Automatic braking of electric sections taking load into  
account. Elek.i topl.tiaga 3 no.7:13-15 J1 '59.  
(MIRA 13:3)

(Railroads--Brakes)

KLYKOV, Ye.V., kand.tekhn.nauk; KONOPLEV, Yu.M., inzh.

Automatic regulation of the pressure of train brakes. Zhel.dor.  
transp. 42 no.6:47-48 Je '60. (MIRA 13:7)  
(Railroads—Brakes)

KONOPLEV, Yu.V.; KITSENKO, Yu.A.; KALICHENKO, B.V.

Using the pulse neutron-neutron logging method in studying the possibility of determining the water-oil contact in horizon 4 of the Anastasiyevka-Troitskoye oil field. Geol. nefti i gaza 9 no.4:44-48 Ap '65. (MIRA 18:8)

1. Krasnodarskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta geofizicheskikh metodov razvedki i Neftepromyslovoye upravleniye Priazovneft'.

*Konoplyeva, A. I.*

FEDOROVA, Nina Emel'yanovna; KHORATSKIY, Nikolay Gekharovich; HELEN'KIY, L.I., kandidat tekhnicheskikh nauk, redaktor; GUSEVA, Ye.M., redaktor; KONOPLYA, A.I., retsentsent; MEKRASOVA, O.I., tekhnicheskii redaktor

[Technical control in cotton finishing production] Tekhnicheskii kontrol' v khlopchatobumazhnom otdelechnom proizvodstve. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva tekstil'noi promyshl. SSSR, 1955. 291 p. (Cotton finishing) (MLRA 9:2)

BARABANOV, L.G.; KONOPLEVA, A.I.; FODIMAN, L.V., kolorist; SHMELEVA, L.S.;  
CHEBIKINA, V.A., dessinator

Practices for improving the assortment and quality of production.  
Tekst. prom. 21 no. 4:55-67 Ap '61. (MIRA 14:7)

1. Direktor kombinata "Trekhgornaya Mamufaktura" (for Barabanov).
2. Zaveduyushchaya otdelechnym proizvodstvom kombinata "Trekhgornaya Mamufaktura" (for Konopleva).
3. Nachal'nik laboratorii kombinata "Trekhgornaya Mamufaktura" (for Shmeleva).  
(Textile fabrics)

BAYANDINA, S.A.; ISAYEVA, L.A.; TALALAYEVA, A.V.; MALYUGINA, Z.N.;  
KONOPIEVA, A.V.

Clinical picture and outcome of acute disseminated lupus erythematosus.  
Pediatriia 37 no.1:76-83 Ja '59. (MIRA 12:1)

1. Iz kliniki detskikh bolezney (dir. - deystvitel'nyy chlen AMN  
SSSR prof. Yu.F. Domborvskaya) i kafedry patologicheskoy anatomii  
(sav. - chlen-korrespondent AMN SSSR prof. A.I. Strukov) i Moskov-  
skogo ordena Lenina meditsinskogo instituta.

(LUPUS ERYTHEMATOSUS, DISSEMINATED, in inf. & child  
acute, clin. picture & outcome (Rus))

KONOPLEVA, L. (Kizel)

Kizel is a sports' center. Sov.shakht. 13 no.2:37-38 F '64.  
(MIRA 17:3)

**AUTHORS:** Dolezhil, M., Konopleva, N.K., SOV/24-58-9-1/31  
Tsibul'ka, Ya. (Moscow) Plaksin, I.N. and

**TITLE:** The Effect of Various Flotation Reagents on the Interaction  
Between Potassium Xanthogenate and Chalcopryrite, Pyrite  
and Tetrahedrite (O vliyanii flotatsionnykh reagentov-  
regulyatorov na vzaimodeystviye ksantogenata s khal'-  
piritom, piritom i tetraedritom)

**PERIODICAL:** Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh  
Nauk, 1958, Nr 9, pp 3 - 8 (USSR)

**ABSTRACT:** Almost all the copper-bearing ores from deposits in  
Western Czechoslovakia contain mainly chalcopryrite and  
tetrahedrite, with a small proportion of pyrite and  
(sometimes) pyrrhotite. Of these, tetrahedrite is of  
particular interest since it contains both copper and  
antimony, the latter element being sometimes replaced  
by silver and accompanied by mercury. Flotation is a  
convenient method for treating these ores but it produces  
a composite sulphide concentrate in which tetrahedrite and chalco-  
pyrite are present in approx. equal proportion, with the  
result that the concentration of antimony and mercury in  
the concentrate is approx. 50% lower than in tetrahedrite.  
This comparatively low concentration of Sb and Hg

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SOV/24-58-9-1/31

The Effect of Various Flotation Reagents on the Interaction Between Potassium Xanthogenate and Chalcopyrite, Pyrite and Tetrahedrite.

makes extraction of these two metals by pyrometallurgical processes more difficult and the object of the present investigation was to explore the possibilities of selective separation of tetrahedrite, chalcopyrite and pyrite by the flotation method. To this end, the effect of various factors on adsorption and desorption of potassium ethylxanthogenate (KEKH) on the investigated minerals was studied by the radioactive tracer technique. The experimental samples (97.9 - 99.36% purity, 0.06 - 0.15 mm particle size) were washed in distilled water, dried in a vacuum dessicator and stored in evacuated ampoules. The KEEKH solution was prepared from solid KEEKH containing the radioactive isotope

$S^{35}$  (specific activity 315 mc/g). Two solutions were used with the concentration of KEEKH equal  $3.12 \times 10^{-4}$  and  $1.87 \times 10^{-4}$  mol/l, corresponding to the consumption of KEEKH of 300 and 180 g/t, respectively. The pH number of the solutions was adjusted by addition of HCl or NaOH and the effect of pH on the adsorption of KEEKH by

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SOV/24-58-9-1/31

The Effect of Various Flotation Reagents on the Interaction Between Potassium Xanthogenate and Chalcopyrite, Pyrite and Tetrahedrite

the investigated minerals was studied in the following way: 1 g of each mineral with 6 ml of the K<sub>2</sub>S<sub>2</sub>O<sub>8</sub> solution was stirred mechanically for 15 minutes, filtered, washed with 5 ml of distilled water and dried. The quantity of the adsorbed K<sub>2</sub>S<sub>2</sub>O<sub>8</sub> was determined from the radioactivity of the powder, and from the difference in the activity of the solution before and after the experiments. The results are reproduced graphically in Figure 1 (for pyrite) and Figure 2 (for tetrahedrite and chalcopyrite). In all cases the relationship between the quantity of adsorbed K<sub>2</sub>S<sub>2</sub>O<sub>8</sub> and pH number was quite complex with a sharp maximum at pH = 6-6.5 in the case of pyrite and at pH = 5.5-6.5 in the case of the two other minerals. In the next stage, the effect of several reagents on adsorption of K<sub>2</sub>S<sub>2</sub>O<sub>8</sub> was investigated by measuring the quantity of K<sub>2</sub>S<sub>2</sub>O<sub>8</sub> adsorbed by powdered minerals that had been previously washed in solutions containing  $1 \times 10^{-4}$  -  $3 \times 10^{-4}$  mol of the reagents in 6 ml of the solution. The following results were obtained:

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SOV/24-58-9-1/31

**The Effect of Various Flotation Reagents on the Interaction Between Potassium Xanthogenate and Chalcopyrite, Pyrite and Tetrahedrite**

Pyrite: Adsorption of KEKH decreased by:  $K_3Fe(CN)_6 >$   
 $> K_4Fe(CN)_6 > CaO > FeSO_4 > ZnSO_4 > Na_2SO_2 > Na_2SO_3$  ;  
 adsorption not affected by :  $Na_2SO_3$ ,  $NaCl$ ,  $NH_4CNS$  ;  
 adsorption increased by :  $CaCl_2 < CuSO_4$

Chalcopyrite: adsorption decreased by:  $K_4Fe(CN)_6 > CaO >$   
 $> Na_2S_2O_3 > NH_4CNS$  ; adsorption not affected by :  
 $NaCl$ ,  $Na_2SO_3$ ,  $Na_2SO_4$  ; adsorption increased by :  
 $CaCl_2 < ZnSO_4 < FeSO_4 < K_3Fe(CN)_6 < CuSO_4$  .

Tetrahedrite: adsorption decreased by :  $K_3Fe(CN)_6 >$   
 $> K_4Fe(CN)_6 > CaO > FeSO_4 > ZnSO_4 > Na_2S_2O_3$  ; adsorption  
 not affected by:  $Na_2SO_3$ ,  $Na_2SO_4$ ,  $CaCl_2$ ,  $NaCl$ ,  $NH_4CNS$ ;  
 Adsorption increased by  $CuSO_4$ .

Finally, desorption of KEKH from the investigated sub-  
 stances by means of potassium sulphide was studied. The  
 effectiveness of this desorbent was found to be roughly  
 the same for all three minerals (Figure 6): with the

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. The Effect of Various Flotation Reagents on the Interaction Between Potassium Xanthogenate and Chalcopyrite, Pyrite and Tetrahedrite

increasing concentration of  $\text{Na}_2\text{S}$  the quantity of desorbed KEKH increased, reaching 80-95% at 0.5%  $\text{Na}_2\text{S}$ .

It was concluded that selective separation of pyrite, chalcopyrite and tetrahedrite by means of adjusting the pH number of the flotation medium is not possible. The fact that adsorption of KEKH is increased by  $\text{K}_3\text{Fe}(\text{CN})_6$

in the case of chalcopyrite and decreased in the case of tetrahedrite could be utilised for developing a selective flotation process for these two minerals. Alternatively, a solution of  $\text{Na}_2\text{S}$  could be used for removing the adsorbed KEKH from all the three minerals which then could be separated by flotation using suitable activating or depressing reagents. There are 6 figures, 1 table and 3 Soviet references.

SUBMITTED: October 17, 1957

Card 5/5

ACCESSION NR: AP4012081

S/0020/64/154/002/0310/0312

AUTHORS: Sokolik, G.A.; Konopleva, N.P.

TITLE: Design theory for compensating fields

SOURCE: AN SSSR. Doklady\*, v. 154, no. 2, 1964, 310-312

TOPIC TAGS: mathematical physics, compensating field, compensating field design theory, balancing field, electromechanics, Lorentz group, Neter theorem, free field Lagrangian, Lagrangian, Abelian group

ABSTRACT: This is an attempt to find an effective form of compensating fields as coherence coefficients in a space with intrinsic degrees of freedom. The local calibration group  $x' = (x) \psi$ ,

$$S = \exp [a_\mu(x) I_\mu]; [I_\mu, I_\nu] = C_{\mu\nu}^\lambda I_\lambda$$

is examined. Simplifying the Neter theorem for the case of a local group, we get

$$Z = Z(\psi; \nabla_\mu \psi), \quad \nabla_\mu = \partial_\mu - A_\mu^\nu I_\nu,$$

$$\delta Z = \frac{\partial Z}{\partial \psi} \delta \psi + \frac{\partial Z}{\partial \nabla_\mu \psi} \delta \nabla_\mu \psi = 0.$$

(1)

Expanding  $\delta Z$  and considering

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ACCESSION NR: AP4012081

$$\nabla_i \frac{\partial \mathcal{L}}{\partial \nabla_i \psi} - \frac{\partial \mathcal{L}}{\partial \psi} = 0, \quad [\partial \partial] = 0,$$

we obtain

$$\frac{\partial}{\partial x_i} \left( \frac{\partial \mathcal{L}}{\partial \nabla_i \psi} / \psi \right) = A_i^a C_{ab}^c / \psi. \quad (3)$$

Considering the free field Lagrangian  $L_0[\Lambda_1^0]$ , in which  $\Lambda_1^0$  enters only as a tensor,

$$F_{ik}^a = (\partial_i A_k^a - \partial_k A_i^a) - 1/2 C_{ab}^c (A_i^b A_k^c - A_k^b A_i^c),$$

transforming with respect to the adjoint group of the calibration group

$$\delta F_{ik}^a = a_b(x) C_{ab}^c F_{ik}^b,$$

owing to which  $\delta$  retains the gauge invariance, and the uniform principle of invariance is replaced by the inhomogeneous  $\partial_i J_1^a + f^a = A_1^0$  on  $I_1$ , where  $f^a = \partial_i J_1^a / \partial F_{ik}^b C_{ab}^c$ . So that  $A_1^0$  could be expressed effectively, the relation  $\delta A_1^a = \epsilon_a C_{ab}^c \chi_b$ , where  $\chi_a$  assign the basis of the adjoint group  $\chi_a = C_{ab}^c \psi_b$  is made use of. Then

$$A_i^a = C_{ab}^c \Omega_b \partial_i \Omega_c, \quad C_{ab}^c C_{cd}^e \Omega_b \Omega_c = \delta_{ad}.$$

The values  $\Omega_a$  can be examined as a frame of reference defined in a space of intrinsic degrees of freedom. "In conclusion, authors wish to thank Prof. K. P. Stanyukovich for his interest in this work and valuable discussions." Orig. art. has: 6 equations.

ASSOCIATION: Nauchno-issledovatel'skiy institut elektromekhaniki  
(Scientific-Research Institute for Electromechanics)

Card 2/3

ACCESSION NR: AP4012081

SUBMITTED: 31Aug63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: MM, PH

NR REF SOV: 005

OTHER: 003

Card 3/3

KONOPL'eva, N.V.

MOKHOVA, T.I.; TURINYA, G.K.; KONOPL'eva, N.V.

Here is a word from directors of agrochemical laboratories. Nauka  
i pered. op. v sel'khes. 7 no.5:33-34 My '57. (MIRA 10:6)

1. Argokhimicheskaya laboratoriya Petrovskoy mashinno-traktornoy  
stantsii, Yaroslavskoy oblasti (for Mokhova). 2. Argokhimicheskaya  
laboratoriya Lielstraupskoy mashinno-traktornoy stantsii, Latvii-  
skoy SSR (for Turinya). 3 Argokhimicheskaya laboratoriya Vitebskoy  
mashinno-traktornoy stantsii, Belorusskoy SSR (for Konopleva).  
(Agricultural chemistry)



KONOPLIEVA, R.F.

PHASE I BOOK EXPLOITATION

SOV/3544

Akademiya nauk SSSR. Otdeleniye fiziko-matematicheskikh nauk

Fizika tverdogo tela; sbornik statey, II (Solid State Physics; Collection of Articles, II) Moscow, Izd-vo AN SSR, 1959. 328 p. 3,500 copies printed.

Ed.: A.F.Ioffe, Academician; Ed. of Publishing House: V. N. Filipovich; Tech. Ed.: R.A. Zamarayeva.

PURPOSE: This collection of articles is intended for physicists investigating the structures and properties of solids.

COVERAGE: This volume II of a two-volume collection of articles dealing with problems of solid state physics, was prepared by the Department of Physics and Mathematics, Academy of Sciences, USSR. The authors report on the physical properties of semiconductors such as germanium, cadmium sulfide, cadmium selenide, gallium arsenide, silicon, and various metal alloys. The electrical conductivity of these substances is studied. The effects of irradiation and acoustic phonons on semiconductors are also investigated. Several articles are

~~Card 1/2~~

Solid State Physics (Cont.)

SOV/3544

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000824320010

devoted to the theory of electrical breakdown. X-ray studies were made on polycrystalline substances, and one study of the gold-barium system was carried out. No personalities are mentioned. References accompany each article.

# TABLE OF CONTENTS:

Fisher, I.Z., and Ch. K. Smolik. Temperature Dependence of Ionization Energy of Impurity Centers in a Homopolar Crystal 3

Zotov, T.D. Temperature Dependence of the Electrical Resistance of a Single Crystal of Magnetite Cooled in a Magnetic Field at a Temperature Below its Low-Temperature Transformation 8

Konopleva, R.F., T.V. Mashovets, and S.M. Ryvkin. Influence of Neutron Irradiation on the Recombination Process in Germanium 11

Kolomiets, B.T., and T.F. Nazarova. Vitreous Semiconductors. Part V. 22

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~~Card 2/2~~

KONOPLIEVA, R.F.

The Problem of the Trapping Cross Section of Holes in Germanium by Defects Formed by Gamma Irradiation

81944

S/181/60/002/04/02/034

B002/B063

bombardment ( $3 \cdot 10^{-15} \text{ cm}^2$  in Ref. 1). There are 1 table and 7 references: 4 Soviet, 1 American, and 2 British.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskii institut AN SSSR  
(Leningrad Physicotechnical Institute of the AS USSR) *X*

SUBMITTED: October 14, 1959

Card 2/2

84083

S/181/60/002/009/024/036  
B004/B056

9.4160 (1105, 1137, 1331)

AUTHORS: Rykin, S. M., Konopleva, R. F., Maslova, L. V.,  
Matveyev, O. A., Strokan, N. B., Tarkhin, D. V.,  
Khozov, G. V.

TITLE: Low-inertia Germanium Photodiodes<sup>25</sup>

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 9, pp. 2199 - 2201

TEXT: Germanium photodiodes were developed in 1954 at the authors' institute; they are now being produced in industry, and have a time constant of about  $10^{-5}$  sec. Now, the low-inertia photodiodes  $\Phi A-M1$  (FD-M1)<sup>25</sup> and  $\Phi A-M2$  (FD-M2) were developed, which have a time constant of only  $(1-3) \cdot 10^{-8}$  sec. Inertia was measured by means of an apparatus schematically shown in Fig. 1. A Kerr cell fed by a ГСС-6 (GSS-6) alternating-current generator modulated light sinusoidally with a frequency,  $f$ , of 1Mc/sec. The light, which was amplified by an  $\Phi \Xi \Upsilon$  (FEU)<sup>25</sup> photomultiplier, was recorded by an CM-1 (SI-1) oscilloscope. Owing to the phase shift  $\varphi$ ,

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Low-inertia Germanium Photodiodes

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S/181/60/002/009/024/036  
B004/B056

the oscilloscope showed an ellipse. By means of an RC phase transformer, the ellipse was changed into a straight line. From the equation  $\tan \varphi = 2\pi f\theta$  the time constant  $\theta$  was calculated. Fig. 2a shows the function  $\theta = f(R_1)$  ( $R_1$  = load resistance). In Fig. 2b the new diodes are compared with an  $\Phi A-1$  (FD-1) diode of the old type. The oscillogram shows that the new diodes precisely reproduce a  $\Pi$ -shaped light pulse. The authors thank I. A. Lebedeva, P. I. Gorshkov, collaborators of the laboratory, and F. M. Berkovskiy, student at LGU (Leningrad State University) for their assistance. There are 3 figures and 4 references: 3 Soviet.

ASSOCIATION: Leningradskiy fiziko-tehnicheskii institut AN SSSR  
(Leningrad Institute of Physics and Technology of the  
AS USSR)

SUBMITTED: November 6, 1959

Card 2/2

84582

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26.1631

S/181/60/002/010/003/051  
B019/B070

AUTHORS: Zhdanovich, N. S., Konopleva, R. F., Ryvkin, S. M.

TITLE: Annealing-out of Defects Formed by Gamma Rays in n-Type Germanium  $\gamma$

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 10, pp. 2356-2358

TEXT: When the defects produced in n-type germanium by irradiation with  $\gamma$  rays are removed by annealing, the decrease shows a nonexponential character. For an explanation of this it is necessary to consider the diffusion of the interstitial atoms and vacancies (Refs. 2,3). Fig. 1 shows the fraction  $\gamma$  of the defects removed by annealing as a function of  $\sqrt{t}$  for annealing temperatures of 120, 140, and 160°C,  $t$  being the annealing time. The experimental values are seen to agree with the theory mentioned in the introduction. Similar results are obtained on bombardment by electrons and neutrons. The activation energy for the diffusion of the defects is found to be 1.01 ev. For comparison, analogous values obtained on irradiation with neutrons (1.12 ev) and with electrons (1.36 and 1.3 ev) are given (Refs. 1,3,4,5). Fig. 2 shows  $\varphi$  as a function

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Annealing-out of Defects Formed by Gamma Rays  
in n-Type Germanium

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B019/B070

of  $Z = (4Dt/r_0^2)^{1/2}$ . It is found that the experimental and theoretical values agree well for  $\lambda = 0.5$  and  $D/r_0^2 = 1.3 \cdot 10^9$  per second.  $r_0$  is, thus, found to be  $2.8 \cdot 10^{-7}$  cm, and so somewhat larger than that obtained in the case of neutron bombardment. Fig. 3 shows that by increasing the  $\gamma$  quantum flux the removal of defects by annealing is more rapid. The linear part of the curve is also reduced. In the conclusion it is stated that the theory of the removal of defects by annealing which is confined to diffusion is unable to explain some important properties which are possibly connected with the interaction of defects with other structural perturbations. There are 3 figures and 6 references: 2 Soviet and 4 US.

ASSOCIATION: Fiziko-tekhnicheskii institut AN SSSR, Leningrad (Institute of Physics and Technology of the AS USSR, Leningrad)

SUBMITTED: March 17, 1960

Card 2/2

KONOPLÉVA, R.F.; RYVKIN, S.M.; YAROSHETSKIY, I.D.

Capture cross section of holes by defects formed by  $\gamma$ -irradiation  
in germanium. Fiz. tver. tela 2 no.4:566-568 Ap '60.  
(MIRA 13:10)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.  
(Germanium)

RYVKIN, S.M.; KONOPLIEVA, R.F.; MASLOVA, L.V.; MATVEYEV, O.A.; STROKAN, N.B.;  
TARKHIN, D.V.; KHOZOV, G.V.

Germanium photodiodes with small inertia. Fiz. tver. tela 2 no.9:2199-  
2201 S '60. (MIRA 13:10)

1. Leningradskiy fiziko-tekhnicheskoy institut AN SSSR.  
(Germanium diodes)



ZHDANOVICH, N.S.; KONOPLEVA, R.F.; RYVKIN, S.M.

Annealing of defects formed in n-type germanium by  $\gamma$ -rays.  
Fiz. tver. tela 2 no.10:2356-2358 '60. (MIRA 13:12)

1. Fiziko-tekhnicheskiy institut AN SSSR, Leningrad.  
(Gamma rays) (Germanium)  
(Semiconductors, Effect of radiation on)

2111  
S/089/61/011/006/011/014  
B102/B138

26.2244

AUTHORS: Konopleva, R. F., Novikov, S. R.

TITLE: Semiconductor transmitters for measuring the relative fast neutron flux distribution in a BAP-M (VVR-M) reactor

PERIODICAL: Atomnaya energiya, v. 11, no. 6, 1961, 546 - 547

TEXT: Besides the threshold indicator method, neutron flux in the experimental channels of a reactor can also be determined by semiconductor devices. This method is based on the fact that fast neutron bombardment produces lattice defects and thus causes increased carrier concentration. The integral flux, which is proportional to the increase in conductivity (cf. Fig. 1), can be determined by measuring  $\sigma$ . The authors tested this method while determining the fast neutron flux in the channels of the VVR-M reactor of the Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR (Physicotechnical Institute imeni A. F. Ioffe AS USSR). As neutron flux transmitters, n-type germanium samples were used (size 10·1·1 mm, resistivity 1 ohm·cm), which were placed in 0.5 mm thick cadmium containers. As the thermal-to-fast-neutron ratio was not more than 10, this

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X

Semiconductor transmitters...

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B102/B138

Cd shield was thick enough to reduce to  $\sim 10\%$  the thermal-neutron contribution to the change in conductivity. A constant voltage was applied to the germanium cells and the neutron flux distribution was determined from the variation in current. The method yields good results for neutron energies above 300 ev. There are 4 figures and 5 references: 4 Soviet and 1 non-Soviet. The reference to English-language publications reads as follows: Phys. Rev. 98, No. 6, 1742 (1955); Phys. Rev. 99, No. 4, 1171 (1955).

SUBMITTED: February 13, 1961

Card 2/2

X

KONOPLEVA, R.F.; NOVIKOV, S.R.

Semiconductor transducers for measuring the relative distribution  
of the fast neutron flux in a VVP-M reactor. Atom. energ. 11  
no.6:546-547 D '61. (MIRA 14:11)  
(Transducers) (Neutrons) (Nuclear reactors)